

# MATERIAL SAFETY DATA SHEET

## SECTION 1 - IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name:** UREA  
**Other Names:** Carbamide  
**Product Code:** BOM5550  
**Product Use:** Fertiliser  
**Company Name:** Richgro Garden Products  
**Company Address:** 203 Acourt Road, Jandakot WA 6164  
**Telephone Number:** (08) 6258 7100 or Toll free 1800 455 132  
**Fax Number:** (08) 8455 1297 or Toll free 1800 671 297  
**Email:** customerservice@richgro.com.au  
**This version issued:** November 2013 and is valid for 5 years from this date.

## SECTION 2 - HAZARDS IDENTIFICATION

### STATEMENT OF HAZARDOUS NATURE

Urea is not classified as hazardous according to Safe Work Australia criteria.

### DANGEROUS GOODS

Urea is not classified as a dangerous good according to the ADG Code.

## SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS No	Conc. %	TWA (mg/m <sup>3</sup> )	STEL (mg/m <sup>3</sup> )
Urea	57-13-6	98.5 % min.		
Various Impurities		Remainder		

## SECTION 4 - FIRST AID MEASURES

**General Information:** Whenever fertilisers are in regular use ensure drinking water and eyewash facilities are available.

**Inhalation:** If over exposure occurs remove affected person to a well ventilated area. Keep warm and at rest. In emergency situations, if breathing is difficult give oxygen. If the affected person suffers cardiac arrest commence cardio-pulmonary resuscitation immediately. Seek urgent medical attention.

**Skin Contact:** Gently flush affected areas with water. Seek medical attention if irritation develops. Remove all contaminated clothing and laundry before re-use.

**Eye Contact:** Flush gently with running water for at least 15 minutes lifting lower and upper eyelids occasionally. Seek medical attention if irritation develops.

**Ingestion:** If person is conscious, rinse mouth thoroughly with water immediately and give water or milk to drink. **DO NOT** induce vomiting. Seek medical attention if more than a small quantity has been swallowed, or if there is pain, or difficulty with swallowing.

**Advice to doctor:** Treat symptomatically.

## SECTION 5 - FIRE FIGHTING MEASURES

**Flammability:** Non flammable and does not support combustion.  
**Extinguishing Media:** Non flammable and does not support combustion.  
**Hazard from combustion products:** If heated to the point of decomposition oxides of nitrogen may be released.  
**Hazchem Code:** None allocated.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

### Methods and Materials for containment and clean up

Any spillage should be cleaned up promptly and swept up. Prevent run-off into drains and waterways.

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### SECTION 7 - HANDLING AND STORAGE

#### Precautions for safe handling

Keep away from alkalis, hypochlorites, oxidizing agents, ammonium nitrate, nitrites, permanganates, metallic powders and strong acids when transporting.

#### Conditions for safe storage, including any incompatibilities

Store in a cool, clean, dry and well ventilated area. Avoid contact with moisture, as it will cause product handling problems.

Store away from alkalis, hypochlorites, oxidizing agents, ammonium nitrate, nitrites, permanganates, metallic powders and strong acids.

### SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

#### National exposure standards:

No specific official limit. ACGIH recommended value for inhalable particulates is **10 mg/m<sup>3</sup>**.

#### Engineering controls

Use in well ventilated areas. Avoid high dust concentration.

#### Personal protective equipment

Wear rubber or PVC gloves to prevent skin contact. Where dust is a problem use a P2 type canister respirator. Wear long sleeves and long trousers to prevent contact. Wear chemical safety glasses to prevent eye contact.

### SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES:

#### Physical Description & colour:

White granules, with saline taste.

#### Odour:

Slight ammoniacal odour.

#### Boiling Point / Range:

Decomposes above 135°C before boiling.

#### Freezing / Melting Point:

133°C.

#### % Volatiles:

Not available.

#### Vapour Pressure:

Does not exert significant vapour pressure.

#### Vapour Density:

Not available.

#### Specific Gravity/Bulk Density:

1.34 / 0.7 – 0.8 t/m<sup>3</sup>.

#### pH of 10% solution:

7.0 – 8.0.

#### Flammability:

Not flammable.

#### Flash point and method of detecting flash point:

Not relevant.

#### Upper and lower flammable (explosive) limits in air:

Not relevant.

#### Evaporation Rate:

Not available.

#### Solubility:

Soluble in water (119.3g / 100mL at 25°C), alcohol and acetone.

#### Ignition temperature:

Not available.

### SECTION 10 - STABILITY AND REACTIVITY

**Reactivity:** Reactive with alkalis, hypochlorites, oxidizing agents, nitrites, permanganates, metallic powders and strong acids.

Mildly corrosive to aluminium, zinc, copper, nickel, cobalt, iron and mild steel.

#### Decomposition products

May react explosively on contact with halogens such as chlorine. If mixed with swimming pool chlorine, e.g. calcium hypochlorite and sodium hypochlorite, it can form a spontaneous explosive mixture.

Ammonia may be released when urea and strong alkalis are mixed together.

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### SECTION 11 - TOXICOLOGICAL INFORMATION

#### Health Effects:

Low toxicity. Use safe work practices to avoid eye or skin contact and dust inhalation.

There is no known effect from chronic exposure to Urea.

#### Inhalation:

High dust concentration of air-borne material may cause irritation to the nose and upper respiratory tract, and symptoms may include coughing and sore throat.

#### Skin:

Prolonged contact may cause some irritation, including redness and itching. No harmful effects from skin absorption have been recorded.

#### Eye:

May cause irritation, redness and pain following contact.

#### Swallowed:

Presents little toxicity, unless large amounts are ingested. Large amounts give rise to gastro-intestinal irritation, with symptoms such as nausea, vomiting, and diarrhoea.

### TOXICITY DATA

<b>Urea (57-13-6)</b>	LDLo (Intravenous): 4800 mg/kg (rabbit)
	LDLo (Intraperitoneal): 6608 mg/kg (mouse)
	LD50 (Intraperitoneal): > 5000 mg/kg (rat)
	LDLo (Subcutaneous): 3000 mg/kg (rabbit)
	LD50 (Ingestion): 8471 mg/kg (rat)
	LD50 (Intravenous): 4600 mg/kg (mouse)
	LD50 (Subcutaneous): 8200 mg/kg (rat)

### SECTION 12 - ECOLOGICAL INFORMATION

#### Environment

It is not anticipated to cause any adverse effects to plants or animals.

### SECTION 13 - DISPOSAL CONSIDERATIONS

#### Disposal methods and containers

Dispose of on a farm, or authorised waste facility in accordance with statutory requirements.

Clean up personnel should vacuum or wet sweep to avoid dust dispersal.

Contact the manufacturer if additional information is required.

#### Legislation:

Dispose of in accordance with relevant local legislation.

### SECTION 14 - TRANSPORT INFORMATION

<b>UN Number:</b>	None allocated.
<b>UN Proper Shipping Name:</b>	None allocated.
<b>Class and Subsidiary Risk:</b>	None allocated.
<b>Packing Group:</b>	None allocated.
<b>EPG:</b>	None allocated.
<b>Hazchem Code:</b>	None allocated.

### SECTION 15 - REGULATORY INFORMATION

#### Australian Regulatory Information:

A poison schedule number has not been allocated to this product using the criteria in the Standard for the **Uniform Scheduling of Drugs and Poisons (SUSDP)**.

All chemicals listed on the **Australian Inventory of Chemical Substances (AICS)**.

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### SECTION 16 - OTHER INFORMATION

This MSDS contains only safety-related information. For other data see product literature.

#### Acronyms:

<b>ACGIH</b>	American Conference of Government Industrial Hygienists
<b>ADG Code</b>	Australian Code for the Transport of Dangerous Goods by Road and Rail (7 <sup>th</sup> edition)
<b>AICS</b>	Australian Inventory of Chemical Substances
<b>CAS number</b>	Chemical Abstracts Service Registry Number
<b>ES-Peak</b>	Exposure Standard – Peak level
<b>ES-Stel</b>	Exposure Standard – Short term exposure level
<b>ES-TWA</b>	Exposure Standard – Time weighted average
<b>Hazchem Code</b>	Emergency action code of numbers and letters that provide information to emergency services especially fire fighters
<b>IARC</b>	International Agency for Research on Cancer
<b>mg/m<sup>3</sup></b>	Milligrams per cubic metre
<b>mg/kg</b>	Milligrams per kilogram
<b>NOHSC</b>	National Occupational Health and Safety Commission
<b>NOS</b>	Not otherwise specified
<b>NTP</b>	National Toxicology Program (USA)
<b>pH</b>	Relates to hydrogen ion concentration – this value will relate to a scale of 0 – 14 where 0 is highly acidic and 14 is high alkaline
<b>R-Phrase</b>	Risk Phrase
<b>SUSDP</b>	Standard for the Uniform Scheduling of Drugs and Poisons
<b>SUSMP</b>	Standard for the Uniform Scheduling of Medicines & Poisons
<b>SWA</b>	Safe Work Australia, formerly ASCC and NOHSC
<b>t/m<sup>3</sup></b>	Tonnes per cubic metre
<b>UN Number</b>	United Nations Number

TO THE BEST OF OUR KNOWLEDGE THIS DOCUMENT COMPLIES WITH THE NATIONAL CODE OF PRACTICE FOR THE PREPARATION OF MATERIAL SAFETY DATA SHEETS 2<sup>ND</sup> EDITION [NOHSC:2011(2003)]

THIS MSDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD STATEMENT INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS MSDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE, INCLUDING IN CONJUNCTION WITH OTHER PRODUCTS.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THE SAFETY AND EMERGENCY SERVICES DEPARTMENT, RICHGRO GARDEN PRODUCTS ON (08) 6258 7100 (AUSTRALIA), +61 8 6258 7100 (OVERSEAS) SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS

OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

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Please read all labels carefully before using product.